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ABSTRACT

Examination of the relationships between achievement ratings and interaction variables suggest that teachers interpret the same student behavior in different ways depending upon the student's race. With increased understanding of the student characteristics and behaviors influencing the formation of differential teacher perceptions, it would be possible to sensitize preservice and inservice teachers to these factors and assist them in identifying and modifying discriminatory attitudes to the benefit of all students. (MB)

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Teachers' Perceptions of and Interaction with Students in Multicultural Classrooms

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How teachers perceive and interact with students is generally considered to have a significant impact on students' learning. That teachers' interaction with students varies with their expectations for student achievement has been amply documented; higher expectations have been associated with more positive teacher behaviors and with greater student learning (e.g., Braun, 1976; Brophy & Good, 1974). Despite considerable research regarding differential teacher attitudes toward particular student groups, there have been few systematic investigations of the nature of teacher-student interaction within multicultural educational settings.

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Most of the investigations of the effects of school desegregation-integration, for example, have been studies of schools, with little if any attention paid to teacher or student classroom behavior. Even when classes have been the unit of study, interpretation of results showing differences or no differences has been impeded by lack of information about what actually occurred within the classrooms. The neglect of classroom process variables precludes identification of possibly significant influences on student learning that are attributable to teacher differences and teacher-student interaction (Dunkin & Biddle, 1974).

Before student outcome variables can be profitably examined, it is necessary to investigate how teachers perceive and interact with students in multicultural classrooms. In what ways are various ethnic, racial, sex, and socioeconomic groups differentially perceived by teachers? To what extent are differences in teachers' perceptions reflected in differential teacher behavior?

There have been several studies of teacher perceptions of black and white students, but most have used descriptions of hypothetical students (e.g., Cooper, Baron, & Lowe, 1975; Dietz & Purkey, 1969; Harvey & Statlin, 1975; Kehle, Bramble, & Mason, 1974; Mazer, 1971). Of the studies of teacher attitudes toward different groups of students in

naturalistic settings (Datta, Schaefer, & Davis, 1968; Freijo & Jaeger, 1976; Hecht, 1975; King, 1967; Long & Henderson, 1971), none was conducted with teachers and students in intact, multicultural classrooms.

Two studies have examined selected aspects of teacher behavior, but not teacher-student interaction or teacher perceptions, in multicultural classrooms (Byalick & Bersoff, 1974; Jackson & Cosca, 1974). Most naturalistic studies of teachers' perceptions and teacher-student interaction have been conducted in monocultural classrooms (cf., Braun, 1976; Brophy & Good, 1974; Dusek, 1975). An exception is Gay's (1974) study of teacher attitudes and interaction with black and white students in multicultural classrooms. The present study extends Gay's investigation by exploring a broader range of teacher perceptions and their behavioral correlates.

The specific purposes of this study are to examine: (a) differences in teachers' perceptions of students' potential achievement, classroom behavior, and personal characteristics by students' race and sex; (b) differences in teacher-student interaction by students' race and sex; and (c) relationships between teacher-student interaction and teachers' perceptions of students' potential achievement and classroom behavior.

Method

Teacher perceptions were obtained for two groups of students, sample A and sample B. The distribution of students by race and sex for both samples is presented in Table 1.

Sample A (N = 189) was composed of the students in one class of each of seven, white student teachers (five males and two females) at two integrated, urban secondary schools. There were four science and three social studies classes. One of the secondary schools serves an upper-lower and lower-middle class community and has a balanced black/white student population. The other serves a broadly middle class community and has a minority (approximately 20 per cent) black student population. Data for sample A were collected during 1974.

Insert Table 1 about here

Sample B (N = 150) was composed of the students in one class of each of 10 masters level teacher interns (five white males, two black and three white females) at two integrated, urban middle schools. There were three classes each in social studies, math, and English-language arts and one in science. Both of the middle schools serve upper-lower and lower-middle class communities and have balanced black/white student populations. Sample B data were collected during 1975.

Teacher-student interaction data were obtained in four classes from sample A. Eight students (two from each race-sex subgroup) in

each of the classes were randomly selected for observation. The classes were taught by one male and one female student teacher at each of the two schools. At the school with four male student teachers, the class selected was the one with the most nearly balanced black/white student ratio. Student absences reduced the number of students for whom complete data were obtained from 32 to 28 (seven students in each class and race-sex subgroup).

Procedure

The study was presented to the prospective teachers as an investigation of the classroom behavior of students with different personalities and abilities. The ratings were described as a means of identifying students' "characteristics," which would then be compared with observed classroom behavior. The teachers were told that, to avoid biasing the outcomes, more specific information was not being provided at that time and that complete information about the nature of the study and the results would be available to them at the conclusion of the study.

Teacher perceptions. The teachers were asked to complete a one-page rating sheet for each of the students in their class. The ratings were obtained by the middle of the second week after the teachers met their classes.

Teachers rated each student on 12 five-point (1 = low, 5 = high) scales. Seven scales referred to personal characteristics: efficient, organized, reserved, industrious, outspoken, outgoing, and pleasant.

Four scales referred to aspects of classroom behavior: frequency of class participation, quality of class participation, extent of cooperation, and frequency of requests for assistance with classwork. On the last scale, teachers rated each student's "potential achievement in this class, compared to other students in this class."

Selection of these scales was based on research identifying dimensions teachers frequently use in differentiating their students (Brophy & Good, 1974). For sample B, the personal characteristics, creative and independent, were substituted for efficient and outgoing because the latter scales appeared to substantially overlap the other scales.

Teacher-student interaction. A modified version of Brophy and Good's (1969) system of dyadic interaction analysis, similar to that used by Cornbleth, Davis, and Button (1974) and Gay (1974), was employed to code teacher interaction with individual students. For each interaction, the identity of the student, the initiator of the contact (teacher or student), and the sequence of the interaction are recorded. Types of teacher questions, quality of student responses, nature of teacher feedback, and public (e.g., class discussion) vs. private (e.g., individual seatwork) interactions are distinguished. Teacher behavior directed toward the class as a whole is not recorded.

After a series of training sessions, using videotaped class sessions, satisfactory inter-coder agreement was obtained. Each of the two coders recorded two periods of teacher-student interaction

in two classes, for a total of eight class periods (approximately six hours). Since the student teachers and their students were accustomed to frequent observation and note-taking by school and university representatives, it was possible to code teacher-student interaction without substantial disruption of classroom activities.

Thirty-seven teacher-student interaction variables were coded and grouped into five categories: teacher questioning, quality of student participation, teacher feedback in teacher afforded contacts, teacher feedback in student initiated contacts, and general teacher-student contacts. The observed teacher-student interaction variables are shown in Table 2.

Insert Table 2 about here

Several teacher-student interactions were not included because of their infrequent occurrence: divergent teacher questions; negative teacher feedback in public and private, student initiated contacts; and negative teacher feedback in private, teacher afforded contacts.

Data analysis. The ratings and interaction data were analyzed using a two (race) by two (sex) multivariate analysis of variance. Correlation analysis was employed to identify relationships between the teacher ratings and the measures of teacher-student interaction.

Results

Teacher Perceptions

Multivariate analysis of the 12 teacher ratings yielded significant ($p < .01$) effects for race in both samples (sample A, F (1, 185) = 2.335, p = <.009; sample B, F (1, 154) = 2.621, p = <.002). There were no significant effects for sex or for the race x sex interaction in either sample.

The univariate results for sample A revealed significant ($p < .05$) race differences for potential achievement, the four classroom behaviors, and five of the seven personal characteristics: efficient, organized, reserved, industrious, and outgoing. In every case, white students were rated more favorably than black students.

The univariate results for sample B were generally similar to those for sample A, although there were fewer significant ($p < .05$) differences. There was a significant difference for quality of class participation, creativity, organization, and industriousness, and in each case, white students were rated higher than black students.

Teacher-Student Interaction

Multivariate analysis of each of the five categories of teacher-student interaction yielded no significant ($p < .01$) effects. (Only four of 37 variables showed univariate Fs with p-values <.05.)

Teacher Perceptions and Teacher-Student Interaction

Correlations between the 37 teacher-student interaction variables and the teacher ratings of students' potential achievement and classroom behavior were obtained for blacks, whites, males, and females and for the total group. Tables 3 through 7 present the significant interaction correlates, by race and sex, for achievement, frequency of class participation, quality of class participation, extent of cooperation, and frequency of requests for assistance, respectively.

Insert Tables 3-7 about here

Markedly different patterns of relationshps were found for blacks and whites. For example, the interaction correlates of the achievement ratings (Table 3) for black and white students did not overlap. Volunteering responses to teacher questions and receiving teacher questions about personal beliefs or experiences were associated with the achievement ratings for black but not white students, while calling out responses to teacher questions and receiving memory and convergent teacher questions were associated with the achievement ratings for white but not black students. Generally, there were fewer correlations between teacher-student interaction variables and teacher ratings for white than for black students. For example, only the frequency of teacher feedback in teacher afforded public contacts was related to the extent of cooperation ratings for whites, while there were several interaction correlates for blacks.

Although different patterns of relationships were also found for males and females, more striking was the low number of interaction correlates overall for male students. For males, there were no interaction correlates of achievement ratings (Table 3), and only one variable (discipline contacts as a proportion of total teacher-student contacts) was associated with the quality of class participation ratings (Table 5).

Discussion

The prospective teachers in this study perceived black and white students differently, as indicated by their ratings of students' potential achievement, classroom behavior, and personal characteristics. These results are generally consistent with Gay's (1974) findings for experienced junior and senior high school teachers. She asked the teachers to estimate the extent (TEE) and quality (TEQ) of teacher-student interaction. The teachers rated white students significantly higher than black students on TEQ; there were no differences for the TEE ratings. In the present study, white students were rated higher than black students on quality of class participation in both samples. White students were also rated higher than black students on frequency of class participation in sample A but not in sample B.

The lack of observed differences in teacher-student interaction in the present study differs from Gay's (1974) findings. She reported significant differences on several teacher-student interaction variables:

white students received more memory and convergent teacher questions while black students received more choice questions; white students gave more correct responses while black students gave more incorrect responses; and white students initiated more work-related contacts with their teachers than did black students.

The absence of differential teacher-student interaction in the present study might be related to the experience level of the teachers. The sample A teachers were student teachers who tend to be especially concerned about making a favorable impression and being respected by their students as unbiased and fair. Therefore, they may have been particularly careful to avoid overt preferential treatment of individuals or groups. This interpretation is consistent with Silberman's (1969) findings that, although teachers' attitudes tend to be reflected in their behavior, teachers communicate some attitudes (concern, indifference) more clearly and regularly than others (attachment, rejection). He suggests that social and/or professional constraints operate to limit the classroom expression of some teacher attitudes. Behavioral expression of more favorable perceptions of one sex, ethnic, or racial group of students compared to another may be judged less legitimate, especially to beginning teachers, than expression of other attitudes.

The differential behavioral correlates of teachers' ratings of the potential achievement and classroom behavior of black and white students suggest that teachers interpret the same student behavior in

different ways depending on the students race. For example, volunteering responses was associated with higher achievement and quality of class participation ratings for black but not for white students, and calling out responses was associated with higher achievement and quality of class participation ratings for white but not for black students. Volunteering responses appears to have greater impact on teachers' perceptions of black students while calling out responses appears to have greater impact on teachers' perceptions of white students. Further research to substantiate and clarify the nature of such differential relationships would be worthwhile. With increased understanding of the student characteristics and behaviors influencing the formation of differential teacher perceptions, it would be possible to sensitize pre- and inservice teachers to these factors and assist them in identifying and modifying discriminatory attitudes to the benefit of all students.

References

Braun, C. Teacher expectations: Sociopsychological dynamics. Review of Educational Research, 1976, 46, 185-213

Brophy, J. E., and Good, T. L. Teacher-child dyadic interaction: A manual for coding classroom behavior. The University of Texas at Austin, Research and Development Center for Teacher Education, Report Series No. 27, 1969.

Brophy, J. E., and Good, T. L. Teacher-student relationships: Causes and consequences. New York: Holt, Rinehart and Winston, 1974.

Byalick, R., and Bersoff, D. N. Reinforcement practices of black and white teachers in integrated classrooms. Journal of Educational Psychology, 1974, 66, 473-480.

Cooper, H. M., Baron, R. H., and Lowe, C. A. The importance of race and social class information in the formation of expectancies about academic performance. Journal of Educational Psychology, 1975, 67, 312-319.

Cornbleth, C., Davis, O. L., Jr., and Button, C. Expectations for pupil achievement and teacher-pupil interaction. Social Education, 1974, 38, 54-58.

Datta, L., Schaefer, E., and Davis, M. Sex and scholastic aptitude as variables in teachers' ratings of the adjustment and classroom behavior of negro and other seventh-grade students. Journal of Educational Psychology, 1968, 59, 94-101.

Dietz, S. M., and Purkey, W. W. Teacher expectation of performance based on race of student. Psychological Reports, 1969, 24, 694.

Dunkin, M., and Biddle, B. J. The study of teaching. New York: Holt, Rinehart and Winston, 1974.

Dusek, J. B. Do teachers bias children's learning? Review of Educational Research, 1975, 45, 661-684.

Freijo, T. D., and Jaeger, R. M. Social class and race as concomitants of composite halo in teachers' evaluative ratings of pupils. American Educational Research Journal, 1976, 13, 1-14.

Gay, G. Differential dyadic interactions of black and white teachers with black and white pupils in recently desegregated social studies classrooms: A function of teacher and pupil ethnicity. Final Report, OE-NIE Project No. 2F113. Austin, Texas: The University of Texas, 1974.

Harvey, D. G., and Statlin, G. T. The relationship between child's SES and teacher expectations: A test of the middle-class bias hypothesis. Social Forces, 1975, 54, 140-159.

Hecht, K. A. Teacher ratings of potential dropouts and academically gifted children: Are they related? Journal of Teacher Education, 1975, 26, 172-175.

Jackson, G., and Cosca, C. The inequality of educational opportunity in the southwest: An observational study of ethnically mixed classrooms. American Educational Research Journal, 1974, 11, 219-229.

Kehle, T. J., Bramble, W. J., and Mason, E. M. Teachers' expectations: Ratings of student performance as biased by student characteristics. Journal of Experimental Education, 1974, 43, 54-60.

King, K. F. Teachers' perceptions of adolescent males from culturally deprived families. Dissertation Abstracts International, 1968, 28, 2921 (University Microfilms No. 68-365).

Long, B. H., and Henderson, E. H. Teachers' judgments of black and white school beginners. Sociology of Education, 1971, 44, 358-368.

Mazer, G. E. Effects of social-class stereotyping on teacher expectation. Psychology in the Schools, 1971, 8, 373-378.

Silberman, M. Behavioral expression of teachers' attitudes toward elementary school students. Journal of Educational Psychology, 1969, 60, 402-407

Table 1

Distribution of Students

by Race and Sex

	Sample A	Sample B
	n	n
Black		
Male	18	41
Female	21	40
White		
Male	82	40
Female	68	37

Table 2

Observed Teacher-Student

Interaction Variables

Teacher Questioning

T Afforded Response Opportunities (teacher questions)

Voluntary S Responses

Callout S Responses

Nonvoluntary S Responses/RO

Voluntary S Responses/RO

Callout S Responses/RO

Procedural Questions/RO

Personal Questions/RO

Memory & Convergent Questions/RO

Quality of Student Participation

Postitive S Responses (correct responses)

Inadequate S Responses (partially correct responses, incorrect responses, no response)

Positive S Responses/RO

Inadequate S Responses/RO

Table 2 - continued

Observed Teacher-Student

Interaction Variables

Teacher Feedback in Teacher Afforded Contacts

T Feedback (positve , probing, neutral and ambivalent, and negative feedback) TA

Postive (acceptance, praise, using student ideas)/T Feedback TA

Probing (repeating or rephrasing a question, asking a follow-up question)/T Feedback TA

Neutral & Ambivalent (no feedback, giving or repeating a response, ambiguous feedback)/T Feedback TA

Negative (rejecting a response, criticising a student, asking another student to respond)/T Feedback TA

Positive Private Contacts (social and praise contacts)/TA Private Contacts

Neutral & Ambivalent Private Contacts (procedural, informational, and ambiguous contacts)/TA Private Contacts

Teacher Feedback in Student Initiated Contacts

T Feedback SI

Positive/T Feedback SI

Probing/T Feedback SI

Neutral & Ambivalent/T Feedback SI

Positve Private Contacts/SI Private Contacts

Neutral & Ambivalent Private Contacts/SI Private Contacts

Table 2 - continued

Observed Teacher-Student

Interaction Variables

General Teacher-Student Contacts
Total SI Contacts (public and private comments, questions, requests)
SI Contacts
SI Private Contacts
Total TA Contacts (private contacts, public and private discipline contacts, response opportunities)
TA Private Contacts
Total Discipline Contacts (public and private teacher discipline)
Total S Participation (public and private student initiated contacts, volunteer and callout responses to teacher questions)
Total Teacher-Student Contacts (public and private teacher afforded and student initiated contacts)
Total SI Contacts/Total T-S Contacts
Total TA Contacts/Total T-S Contacts
Total Discipline Contacts/Total T-S Contacts

Note: Variables refer to public interactions unless otherwise indicated.

T = Teacher; S = Student; TA = Teacher Afforded; SI = Student Initiated; RO = Response Opportunities; T-S = Teacher-Student.

Table 3

Teacher-Student Interaction Correlates of Achievement Ratings by Race and Sex

Interaction Variables	Total[a]	Black[b]	White[b]	Male[b]	Female[b]
Teacher Questioning					
TA Response Opportunities			.517		.521
Voluntary S Responses	.417	.623			.530
Callout S Responses			.561		.661
Voluntary S Responses/RO	.409	.775			.507
Callout S Responses/RO					.519
Personal Questions/RO		.715			
Memory & Convergent Questions/RO	.446		.484		.597
Quality of Student Participation					
Positive S Responses			.557		.618
Inadequate S Responses			.544		
Positive S Responses/RO	.348				
Teacher Feedback in Teacher Afforded Contacts					
T Feedback TA			.547		.618
Probing/T Feedback TA		.483			
Negative/T Feedback TA					.492

Table 3 - continued

Teacher-Student Interaction Correlates of Achievement Ratings by Race and Sex

Interaction Variables	Total[a]	Black[b]	White[b]	Male[b]	Female[b]
Teacher Feedback in Student Initiated Contacts					
Positive/T Feedback SI					.486
Probing/T Feedback SI	.342	.557			.553
Neutral & Ambivalent Private Contacts/SI Private Contacts					.567
General Teacher-Student Contacts					
Total Discipline Contacts	-.338				
Total Discipline Contacts/ Total T-S Contacts	-.378		-.506		

Note: T = Teacher; S = Student; TA = Teacher Afforded; SI = Student Initiated; RO = Response Opportunities; T-S = Teacher-Student.

[a] $N = 28$; $p < .05 = .323$; $p < .01 = .445$

[b] $n = 14$; $p < .05 = .458$; $p < .01 = .612$

Table 4

Teacher-Student Interaction Correlates of Frequency of Class Participation Ratings by Race and Sex

Interaction Variables	Total[a]	Black[b]	White[b]	Male[b]	Female[b]
Teacher Questioning					
TA Response Opportunities	.356	.612			.547
Voluntary S Responses	.464	.667			.587
Callout S Responses	.369	.615			.567
Nonvoluntary S Responses/RO	-.402				
Voluntary S Responses/RO	.340	.525			.592
Callout S Responses/RO		.473			
Quality of Student Participation					
Positive S Responses	.344	.626			.470
Inadequate S Responses	.383	.628			.476
Teacher Feedback in Teacher Afforded Contacts					
Teacher Feedback TA	.439	.691			.616
Teacher Feedback in Student Initiated Contacts					
T Feedback SI	.355	.673			
Neutral & Ambivalent/T Feedback		.586			
Neutral & Ambivalent Private Contacts/SI Private Contacts					.559

Table 4 - continued

Teacher-Student Interaction Correlates of Frequency of Class Participation Ratings by Race and Sex

Interaction Variables	Total[a]	Black[b]	White[b]	Male[b]	Female[b]
General Teacher-Student Contacts					
Total SI Contacts	.512	.794		.639	
SI Contacts	.349	.607			
SI Private Contacts	.350				
Total TA Contacts	.330	.579			
TA Private Contacts	.327	.523		.554	
Total S Participation	.559	.801	.461	.605	
Total T-S Contacts	.462	.714		.510	
Total SI Contacts/Total T-S Contacts		.483			
Total Discipline Contacts/ Total T-S Contacts	-.329				

Note: T = Teacher; S = Student; TA = Teacher Afforded; SI = Student Initiated; RO = Response Opportunities; T-S = Teacher-Student.

[a] $N = 28$; $p < .05 = .323$; $p < .01 = .445$

[b] $n = 14$; $p < .05 = .458$; $p < .01 = .612$

Table 5

Teacher-Student Interaction Correlates of Quality of Class Participation Ratings by Race and Sex

Interaction Variables	Total[a]	Black[b]	White[b]	Male[b]	Female[b]
Teacher Questioning					
TA Response Opportunities			.464		
Voluntary S Responses	.388	.648			.490
Callout S Responses			.503		.675
Voluntary S Responses/RO	.347	.657			.465
Callout S Responses/RO	.450	.503			.536
Personal Questions/RO		.480			
Memory & Convergent Questions/RO	.499				.610
Quality of Student Participation					
Positive S Responses		.460	.543		.496
Postive S Responses/RO	.447		.555		.512
Teacher Feedback in Teacher Afforded Contacts					
T Feedback TA		.470	.491		.576
Positive/T Feedback TA	.349				
Neutral & Ambivalent Private Contacts/TA Private Contacts					.486

Table 5 - continued

Teacher- Student Interaction Correlates of Quality of Class Participation Ratings by Race and Sex

Interaction Variables	Total[a]	Black[b]	White[b]	Male[b]	Female[b]
Teacher Feedback in Student Initiated Contacts					
Neutral & Ambivalent/T Feedback SI		.771			
General Teacher-Student Contacts					
Total Discipline Contacts/ Total T-S Contacts	-.474	-.555		-.565	

Note: T = Teacher; S = Student; TA = Teacher Afforded; SI = Student Initiated; RO = Response Opportunities; T-S = Teacher-Student.

[a] $N = 28$; $p < .05 = .323$; $p < .01 = .445$

[b] $n = 14$; $p < .05 = .458$; $p < .01 = .612$

Table 6

Teacher-Student Interaction Correlates of Extent of Cooperation Ratings by Race and Sex

Interaction Variables	Total[a]	Black[b]	White[b]	Male[b]	Female[b]
Teacher Questioning					
Voluntary S Responses					.465
Callout S Responses					.598
Nonvoluntary S Responses/RO				-.515	
Voluntary S Responses/RO					.473
Callout S Responses/RO					.458
Procedural Questions/RO	-.556	-.704		-.513	-.615
Memory & Convergent Questions/RO	.391				.610
Quality of Student Participation					
Teacher Feedback in Teacher Afforded Contacts					
T Feedback TA			.517		.474
Neutral & Ambivalent/T Feedback TA		-.480			
Neutral & Ambivalent Private Contacts/TA Private Contacts					-.462
Teacher Feedback in Student Initiated Contacts					
Positive Private Contacts/SI Private Contacts		-.501			

Table 6 - continued

Teacher-Student Interaction Correlates of Extent of Cooperation Ratings by Race and Sex

Interaction Variables	Total[a]	Black[b]	White[b]	Male[b]	Female[b]
General Teacher-Student Contacts					
Total SI Contacts	-.358				-.534
SI Private Contacts					-.504
Total TA Contacts	-.394	-.510		-.469	
TA Private Contacts		-.462			-.524
Total Discipline Contacts	-.606	-.764		-.648	-.557
Total T-S Contacts	-.406	-.479			-.468
Total Discipline Contacts/ Total T-S Contacts	-.386			-.663	

Note: T = Teacher; S = Student; TA = Teacher Afforded; SI = Student Initiated; RO = Response Opportunities; T-S = Teacher-Student.

[a] $N = 28$; $p < .05 = .323$; $p < .01 = .445$

[b] $n = 14$; $p < .05 = .458$; $p < .01 = .612$

Table 7

Teacher-Student Interaction Correlates of Frequency of Requests for Assistance Ratings by Race and Sex

Interaction Variables	Total[a]	Black[b]	White[b]	Male[b]	Female[b]
Teacher Questioning					
TA Response Opportunities					.533
Voluntary S Responses	.570	.628	.495	.485	.650
Callout S Responses					.712
Nonvoluntary S Responses/RO	-.500	-.566			-.576
Voluntary S Responses/RO	.614	.684	.574	.651	.582
Quality of Student Participation					
Inadequate S Responses			.474		.702
Inadequate S Responses/RO			.631		
Teacher Feedback in Teacher Afforded Contacts					
T Feedback TA					.678
Neutral & Ambivalent/T Feedback TA			.613	.458	
Negative/T Feedback TA					.500
Neutral & Ambivalent Private Contacts/TA Private Contacts					.495

Table 7 - continued

Teacher-Student Interaction Correlates of Frequency of Requests for Assistance Ratings by Race and Sex

Interaction Variables	Total[a]	Black[b]	White[b]	Male[b]	Female[b]
Teacher Feedback in Student Initiated Contacts					
T Feedback SI			.588		
Neutral & Ambivalent/T Feedback SI			.514		
Neutral & Ambivalent Private Contacts/SI Private Contacts	.466				.668
General Teacher-Student Contacts					
SI Contacts			.581		
Total Discipline Contacts	-.339				
Total SI Contacts/Total T-S Contacts					.466
Total Discipline Contacts/ Total T-S Contacts	-.406		-.491	-.514	

Note: T = Teacher; S = Student; TA = Teacher Afforded; SI = Student Initiated; RO = Response Opportunities; T-S = Teacher-Student.

[a] $N = 28$; $p < .05 = .323$; $p < .01 = .445$

[b] $n = 14$; $p < .05 = .458$; $p < .01 = .612$